

**REMARKS**

**PENDING CLAIMS**

Claims 5-10 remain pending.

**35 U.S.C. §112**

Applicants have amended the claims to overcome the 35 U.S.C. §112, first paragraph and 35 U.S.C. §112, second paragraph rejections.

**35 U.S.C. §101**

Applicants have amended the preamble of claims 8-10 to overcome the 35 U.S.C. §101 rejection.

**OBJECTION TO THE DRAWINGS**

By amending claim 5, applicants have overcome the requirement to submit a proposed drawing correction. Accordingly, the objection to the drawings should be withdrawn.

**35 U.S.C. §102 AND §103**

Claims 5-10 stand rejected as being anticipated by applicants' admitted prior art (AAPA) and further as being unpatentable over AAPA in view of any of Japan '996 (JP 3-

26996), Carelli et al, U.S. Patent No. 6,259,760 or Isberg, U.S. Patent No. 3,712,851. Claim 8 is rejected as being unpatentable over AAPA, JP '996, Carelli et al or Isberg et al, further in view of Japan '081 (JP 1-202081). Further, claim 9 is rejected over the AAPA, JP '996, Carelli et al or Isberg et al combination and further in view of Yoshizumi et al, U.S. Patent No. 5,896,434. Applicants request reconsideration of the rejections for the following reasons.

According to the present invention, as defined in claim 5, an upper shroud that is mounted on a lower shroud has an outer peripheral side in which cutouts are formed through which the runners are capable of passing. The cutouts are formed right above the runners such that all of the runners align vertically with the through-cutouts at the same time, respectively. As a result, any of the runners can be taken out through the through-cutouts without moving the runners in a circumferential direction, as required in the prior art.

The claims are not anticipated by the AAPA or by Japan '485. In particular, as amended, claim 5 sets forth the structure of the runners and the through-cutouts through which the runner are capable of passing. Further, the claim has been amended to clarify that the runners are aligned

vertically with the through-cutouts, which is not shown in the AAPA.

In Japan '485, an internal pump 6 is shown, however, the pump is intended to be moved in a circumferential direction indicated by arrows until it meets or aligns with a top guide cut 7, in which case the internal pump 6 is pulled out upward. See page 2, lines 13-15 of the translation, with reference to Fig. 2. Accordingly, the invention set forth in claim 5, in which the runners and the through-cutouts are formed so that the runners align vertically with the through-cutouts is not shown in JP '485.

Japan '996 discloses a steam cooling type nuclear reactor with an emergency core cooling system. A partition 13 is provided inside the reactor pressure vessel 1 and cooling water is stored in a space formed between the partition and the reactor pressure vessel. Accordingly, it is unnecessary to immerse a primary coolant circuit in a large pool. However, the reference does not disclose the runner as being aligned vertically with the through-cutouts, as claimed in amended claim 5.

Carelli et al discloses reactor coolant pumps 43, however, the reference does not show the runners and the through-cutouts formed so that the runners align vertically

with the through-cutouts so that all of the runners are aligned vertically with the through-cutouts at the same time, respectively, as claimed by Applicants.

Isberg et al disclose reactor coolant recirculation pumps, however, the reference does not disclose or suggest the alignment of through-cutouts and runners, as claimed by applicants.

Japan '081 has been relied upon in combination with AAPA, JP '996, Carelli et al or Isberg et al to reject claim 8. However, the reference merely discloses heat exchangers and internal pumps and does not make up for the deficiencies set forth with respect to the AAPA, JP '996, Carelli et al and Isberg et al references as set forth in the foregoing discussion. Accordingly, the rejection of claim 8 should be withdrawn.

Yoshizumi et al disclose reactor coolant recirculation pumps. However, claim 9 has been amended to set forth that the reactor cooling system of the invention includes a single-train power supply system for driving the reactor circulation pumps. Accordingly, claim 9 is patentable over the AAPA, JP '996, Carelli et al or Isberg et al in combination with Yoshizumi et al.

**CONCLUSION**

Independent claim 5 is patentable over the AAPA and the combination of the AAPA, JP '996, Carelli et al or Isberg et al combination for the foregoing reasons. Further, each of claims 6-10 depends from claim 5 as the base claim and therefore is patentable at least for depending from a patentable independent claim. Accordingly, claims 5-10 should be found to be allowable over the art of record.

In view of the foregoing amendments and remarks, reconsideration and reexamination are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John R. Mattingly", with a stylized flourish at the end.

John R. Mattingly  
Registration No. 30,293  
Attorney for Applicant

MATTINGLY, STANGER & MALUR  
1800 Diagonal Road, Suite 370  
Alexandria, Virginia 22314  
(703) 684-1120  
Date: November 29, 2004